

CLAIMS

1. A polyacetal resin composition comprising a polyacetal resin and a carboxylic acid hydrazide, wherein
5 the carboxylic acid hydrazide comprises at least one member selected from the group consisting of a saturated or unsaturated long-chain aliphatic carboxylic acid hydrazide, a saturated or unsaturated alicyclic carboxylic acid hydrazide, a dimer acid or trimer acid hydrazide, and an
10 oxycarboxylic acid hydrazide corresponding to each of said hydrazides.

2. A resin composition according to claim 1, wherein the carboxylic acid hydrazide comprises at least one member selected from the group consisting of a saturated or unsaturated aliphatic C₁₆₋₄₀carboxylic acid hydrazide, a saturated or unsaturated C₆₋₄₀alicyclic carboxylic acid hydrazide, a saturated or unsaturated linear C₂₀₋₆₀dimer acid hydrazide, a saturated or unsaturated linear C₂₀₋₆₀trimer acid hydrazide, a saturated or unsaturated cyclic C₂₀₋₆₀dimer acid hydrazide, a saturated or unsaturated cyclic C₂₀₋₆₀trimer acid hydrazide, and an oxycarboxylic acid hydrazide corresponding to each of said hydrazides.

3. A resin composition according to claim 1,
25 wherein the carboxylic acid hydrazide comprises at least one member selected from the group consisting of a saturated or unsaturated aliphatic C₁₆₋₄₀monocarboxylic acid

monohydrazide, a saturated or unsaturated aliphatic C₁₆₋₄₀dicarboxylic acid mono- or dihydrazide, a saturated or unsaturated aliphatic oxy-C₁₆₋₄₀monocarboxylic acid monohydrazide, a saturated or unsaturated aliphatic

5 oxy-C₁₆₋₄₀dicarboxylic acid mono- or dihydrazide, a saturated or unsaturated alicyclic C₆₋₂₀monocarboxylic acid monohydrazide, a saturated or unsaturated alicyclic C₆₋₂₀dicarboxylic acid mono- or dihydrazide, a saturated or unsaturated linear C₂₀₋₄₀dimer acid mono- or dihydrazide,

10 a saturated or unsaturated cyclic C₂₀₋₄₀dimer acid mono- or dihydrazide, a saturated or unsaturated linear C₃₀₋₆₀trimer acid mono- to trihydrazide, and a saturated or unsaturated cyclic C₃₀₋₆₀trimer acid mono- to trihydrazide.

15 4. A resin composition according to claim 1, wherein the carboxylic acid hydrazide comprises at least one member selected from the group consisting of montanic acid hydrazide, eicosanedioic acid dihydrazide, 8,12-eicosadienedioic acid dihydrazide, 12-hydroxystearic acid hydrazide, 1,4-cyclohexanedicarboxylic acid dihydrazide, and linoleic dimer acid dihydrazide.

20 5. A resin composition according to claim 1, wherein the proportion of the carboxylic acid hydrazide is 0.001 to 20 parts by weight relative to 100 parts by weight of the polyacetal resin.

25 6. A resin composition according to claim 1, which further comprises at least one member selected from the

group consisting of an antioxidant, a heat stabilizer, a processing stabilizer, a weather (light)-resistant stabilizer, an impact resistance improver, a slip-improving agent, a coloring agent, and a filler.

5 7. A resin composition according to claim 6,
wherein the antioxidant, the processing stabilizer, the
heat stabilizer, and the weather (light)-resistant
stabilizer are substantially free from an intramolecular
ester bond.

10 8. A resin composition according to claim 6,
wherein the antioxidant comprises at least one member
selected from the group consisting of a hindered
phenol-series compound and a hindered amine-series
compound.

15 9. A resin composition according to claim 6,
wherein the processing stabilizer comprises at least one
member selected from the group consisting of a long-chain
fatty acid or a derivative thereof, a polyoxyalkylene glycol,
and a silicone-series compound.

20 10. A resin composition according to claim 6,
wherein the heat stabilizer comprises at least one member
selected from the group consisting of a basic
nitrogen-containing compound, a phosphine-series compound,
a metal salt of an organic carboxylic acid, an alkali or
25 alkaline earth metal compound, a hydrotalcite, and a
zeolite.

11. A resin composition according to claim 6,

wherein the heat stabilizer comprises at least one member selected from the group consisting of an alkaline earth metal salt of an organic carboxylic acid, and an alkaline earth metal oxide.

5 12. A resin composition according to claim 6, wherein the heat stabilizer comprises an alkaline earth metal salt of an oxy-acid.

13. A resin composition according to claim 6, wherein the weather (light)-resistant stabilizer comprises
10 at least one member selected from the group consisting of a benzotriazole-series compound, a benzophenone-series compound, an aromatic benzoate-series compound, a cyanoacrylate-series compound, a oxalic anilide-series compound, and a hydroxyaryl-1,3,5-triazine-series
15 compound.

14. A resin composition according to claim 6, wherein the impact resistance improver comprises at least one member selected from the group consisting of a thermoplastic polyurethane and an acrylic core-shell
20 polymer.

15. A resin composition according to claim 6, wherein the slip-improving agent comprises at least one member selected from the group consisting of an olefinic polymer, a silicone-series resin, and a fluorine-containing
25 resin.

16. A process for producing a polyacetal resin composition, which comprises mixing a polyacetal resin with

a carboxylic acid hydrazide comprising at least one member selected from the group consisting of a saturated or unsaturated long-chain aliphatic carboxylic acid hydrazide, a saturated or unsaturated alicyclic carboxylic acid hydrazide, and an oxycarboxylic acid hydrazide corresponding to each of said hydrazides, wherein the resin composition is prepared by using an extruder, and feeding at least said carboxylic acid hydrazide through a side feed port of the extruder.

10 17. A shaped article formed from a polyacetal resin composition recited in claim 1.

15 18. A shaped article according to claim 17, wherein (1) the emission of formaldehyde from the shaped article which is maintained in a closed space for 24 hours at a temperature of 80°C is not more than 1.0 µg per one cm² of the surface area of the article, and/or (2) the emission of formaldehyde from the shaped article which is maintained in a closed space for 3 hours at a temperature of 60°C under saturated humidity is not more than 2 µg per one cm² of the surface area of the article.

20 19. A shaped article according to claim 17, which is an automotive part, an electric or electronic device part, an architectural or pipeline part, a household utensil or cosmetic article part, or a medical device part.